Department of Computer Science & Engineering
Faculty Development Programme (FDP) on "INTERNET OF THINGS"
(30th NOV – 9th DEC, 2017): Lecture Schedule

Day &Date	9:00 - 11:00		11:15 - 01:15		02:15 - 04:15		04:30 - 06:30
Thursday 30.11.2017	Introduction to IoT Technologies	Tea Break	Overview and market of IoT, Block diagram and Schematic of IoT	Lunch	IoT Hardware Concepts	Tea Break	Overview of ARM Central processor units (CPU) and Microcontroller units (MCU)
Friday 01.12.2017	Operating System, RTOS utilization for IoT applications		Analog, Digital and Hybrid Sensors		Hardware Protocols for connecting sensors to the MCU: I2C, UART and GPIO		Raspberry Pi 3 – IoT platform
Saturday 02.12.2017	IoT Sensor devices -Sensor Integration – Temperature, Humidity, Air Quality, Proximity etc.		Embedded programming		Networking concepts		An overview of Wi-Fi, Bluetooth, ZigBee, GSM, GPRS and LoRa technologies
Sunday 03.12.2017	IoT Standards and Protocol		MQTT and CoAPP,OMA, IETF, and IPSO object model, IEEE and NIST IoT framework		Overview of Cypress IoT hardware platform		CYW943907AEVAL1F kit
Monday 04.12.2017	Installation of Cypress tools and IDE		Sensor Integration to the Cypress board		IoT Commercial Cloud technologies		AWS IoT, IBM – Blue Mix
Tuesday 05.12.2017	Microsoft Azure, General Electric – Predix		Integrating Cloud platform to the constructed IoT hardware		Installation of Cloud technologies – UBI Dots		Demonstrate sensor readings on the cloud
Wednesday 06.12.2017	Creating Dash boards, IoT data analytics		Overview of Dew Mobility Development Kit		Marvell MW302		Demonstration on Environmental Monitoring
Thursday 07.12.2017	IoT applications & Use cases		Smart City		Smart Health		Smart Environmental monitoring
Friday 08.12.2017	IoT Data Structure		Understanding the big data and its structure		Mesh networks for sensor connectivity in cities and rural area networking		Data Harvesting, Data Analytics
Saturday 09.12.2017	Web and mobile application programming		Cloud Computing		IoT Security and Privacy		Application Layer Security